

What is claimed is

1. An abnormality detection support device comprising:

- an infrared camera;

- a display which, at least when the infrared camera is in use, comes to be positioned in front of a user's eyes and reproduces an image taken by the infrared camera thereon; and

- one of a face protector and a helmet, on which the infrared camera and the display are provided; wherein

- the infrared camera and the display are arranged to be within an outline of the user's head in a front view when the device is put on the user.

2. An abnormality detection support device comprising:

- an infrared camera;

- a display which, at least when the infrared camera is in use, comes to be positioned in front of a user's eyes and reproduces an image taken by the infrared camera thereon; and

- one of a face protector and a helmet, on which the infrared camera and the display are provided; wherein

- the infrared camera is arranged on a line extending through the user's left and right eyes and near one of the eyes.

3. An abnormality detection support device comprising:

- an infrared camera;

- a display which, at least when the infrared camera is in use, comes to be positioned in front of a user's eyes and reproduces an image taken by the infrared camera thereon; and

- one of a face protector and a helmet, on which the infrared camera and the display are

provided; wherein

the infrared camera is arranged so that a center of gravity is put over a virtual center line of any one of the face protector and the helmet.

4. An abnormality detection support device comprising:

an infrared camera;

a display which, at least when the infrared camera is in use, comes to be positioned in front of a user's eyes and reproduces an image taken by the infrared camera thereon; and

one of a face protector and a helmet, on which the infrared camera and the display are provided; wherein

the infrared camera is arranged in a position near a jaw portion of the user.

5. An abnormality detection support device comprising:

an infrared camera;

a display which, at least when the infrared camera is in use, comes to be positioned in front of a user's eyes and reproduces an image taken by the infrared camera thereon; and

one of a face protector and a helmet, on which the infrared camera and the display are provided; wherein

the infrared camera is arranged in a position separated from the display in a front view and the image taken by the infrared camera is reproduced on the display in a position in front of the user's eyes by optical or electrical coordinate conversion.

6. The abnormality detection support device according to any one of claim 1 to 5, the display is of a monocular type.

7. The abnormality detection support device according to any one of claim 1 to 5, wherein one of the face protector and the helmet is equipped with a radio data transmission device for

radio-transmitting an image signal of the infrared camera to a radio receiver provided in a remote location.

8. The abnormality detection support device according to any one of claim 1 to 5, wherein the infrared camera is detachable from one of the face protector and the helmet.

9. The abnormality detection support device according to claim 8, wherein the infrared camera can be attached to or detached from one of the face protector and the helmet with the user's simple operation.

10. The abnormality detection support device according to any one of claim 1 to 5, wherein the display can be moved to another position so as to be out of the user's view when the display is not in use.

11. The abnormality detection support device according to claim 6, wherein the infrared camera and the display are arranged on a same side with respect to a virtual center line which divides a front of a head of the user into right and left portions.

12. The abnormality detection support device according to any one of claim 1 to 5, wherein a shield is provided to a front of any one of the face protector and the helmet, and inner surface of the shield and a surface of the display are fog-proofed.

13. The abnormality detection support device according to any one of claim 1 to 4, wherein an adjustment mechanism for adjusting a position and an angle of the display is provided.

14. The abnormality detection support device according to claim 7, wherein the radio data transmission device can receive radio data from a remote location.

15. The abnormality detection support device according to claim 7, wherein the infrared camera, the display and the radio data transmission device are installed inside one of the face protector and the helmet.

16. The abnormality detection support device according to claim 14, wherein the infrared camera, the display and the radio data transmission device are installed inside one of the face protector and the helmet.

17. The abnormality detection support device according to claim 3, wherein:

at least one of a camera control device, a radio data transmission device and a battery is provided to one of the face protector and the helmet; and

at least one of the camera control device, the radio data transmission device and the battery, and the infrared camera are arranged so that a center of gravity is put over the virtual center line of one of the face protector and the helmet.